

DNREC produces wetlands report card and management recommendations on the Smyrna River Watershed

DOVER – A new “wetlands report card” for the Smyrna River Watershed is now available from DNREC’s Wetland Monitoring and Assessment Program – the ninth in a series of watershed-specific wetland health reports produced by the Department. The Smyrna River Watershed extends into both Kent and New Castle counties, where agriculture (46 percent) and wetlands (27 percent) primarily dominate the landscape. The wetlands report card indicates that wetlands in the Smyrna watershed were in better-than-average condition when rated against other previously assessed Delaware watersheds, earning an overall B-minus grade.

Nearly half (47 percent) of the wetlands found in the Smyrna River Watershed were the saltwater tidal variety. Other dominant wetland types include freshwater forested flats, riverine, and depressions. Saltwater tidal and freshwater flat wetlands were in the best health of the four types evaluated. Both received a B- grade, mostly as a result of invasive plant species and development closely surrounding the wetlands. Tidal wetlands in this area were in better health compared to most in Delaware due to a lack of man-made ditches.

Teams of wetland scientists from DNREC’s Division of Watershed Stewardship and the Partnership for the Delaware Estuary gained permission to visit a total of 122 randomly-selected sites within the Smyrna River Watershed. Using condition assessment checklists and biological metrics, they found that wetlands in the watershed were in fair condition, and that the most common stressors were invasive plants; the digging,

filling, and/or ditching of wetlands; and agriculture or development in the buffer area closely surrounding the wetland.

DNREC's data were used to create a [technical report](#) and a more user-friendly [report card](#) that summarized not only the health of the Smyrna River Watershed's wetlands, but also examined the change in wetland acreage in recent decades, what value wetlands provide, and how recent changes in land use will impact wetlands. Already, 32 percent of this watershed's original wetlands have been lost, primarily due to conversion to development and agriculture. Meanwhile, in their ongoing preservation work, DNREC's Wetland Monitoring and Assessment program continues to emphasize how wetlands are beneficial resources for both people and wildlife, and that impacts to their health reduce a wetland's ability to perform and diminish fully, minimizing its valuable role in controlling flooding and erosion, improving water quality, and providing beautiful habitats for us all.

Based on results included in the report, DNREC made recommendations to scientists, decision makers, and landowners to improve the future health of the Smyrna River Watershed's wetlands. These included: encouraging planting buffers around streams and wetlands; promoting restoration of degraded wetlands; improving protection of non-tidal freshwater wetlands; using best management practices in agricultural operations, and exploring innovative shoreline protection techniques such as living shorelines.

The wetland reports and the work of the [Wetland Monitoring and Assessment Program](#) are made possible by EPA Region 3 Wetland Program Development funding. To view more details on the Smyrna River Watershed or for more information on assessment methods, please visit de.gov/watershedhealth.

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